CLAIMS

1. A method of testing a plurality of wireless subscriber stations, comprising:

generating a broadcast signal;

digitally creating a plurality of independently faded signals from the broadcast signal; and

providing at least one of the faded signals to each of the wireless subscriber stations under test.

2. The method of claim 1 further comprising monitoring each of the subscriber stations under test to determine whether it can recover the broadcast signal from its respective said at least one of the faded signals.

3. The method of claim 1 further comprising receiving a signal from each of the wireless subscriber stations under test, digitally creating at least one independently faded signal from each of the received signals, and generating a second broadcast signal for the wireless subscriber stations under test based on said at least one independently faded signal created from each of the received signals.

4. The method of claim 1 further comprising converting each of the digitally created faded signals to an analog faded signal at a carrier frequency before providing the faded signals to their respective subscriber stations.

5. The method of claim 1 wherein said one of the faded signals provided to each of the wireless subscriber stations comprises two faded signals, each of the two faded signals representing a different faded signal path.

6. The method of claim 1 wherein each of the faded signals is digitally created by generating multiple copies of the broadcast signal, independently scaling each of the multiple copies as a function of one or more parameters relating to a fading model, and combining the result.

7. The method of claim 6 further comprising applying a doppler frequency shift to each of the multiple copies.

8. The method of claim 6 further comprising applying a delay to each of the multiple copies.

9. The method of claim 1 wherein the broadcast signal comprises video.

10. The method of claim 1 wherein the broadcast signal comprises a spread-spectrum signal.

11. The method of claim 1 further comprising monitoring a digital communications signal from each of the subscriber stations under test.

12. The method of claim 11 wherein the digital communications signal from each of the subscriber stations under test is monitored by digitally creating two independently faded signals from each of the subscriber stations, combining a first one of the two independently faded signals from each of the subscriber stations under test, combining a second one of the two independently faded signals from each of the subscriber stations under test, and attempting to recover the digital communications signal from each of the subscriber stations under test from the first and second ones of the combined independently faded signals.

13. An apparatus to test a plurality of wireless subscriber stations, comprising:

a base station simulator configured to generate a broadcast signal;

a digital processor configured to create a plurality of independently faded signals from the broadcast signal; and

an interface configured to provide at least one of the faded signals to each of the wireless subscriber stations under test.

14. The apparatus of claim 13 wherein the digital processor is further configured to receive a signal from each of the wireless subscriber stations under test, digitally create at least one independently faded signal from each of the received signals, and provide said at least one independently faded signal created from each of the received signals to the base station simulator.

15. The apparatus of claim 13 wherein the interface comprises a plurality of subscriber station test connections.

16. The apparatus of claim 13 wherein the interface is configured to convert each of the faded signals to an analog faded signal at a carrier frequency.

17. The apparatus of claim 13 wherein the interface is configured to provide two faded signals, each of the two faded signals representing a different faded signal path.

18. The apparatus of claim 13 wherein the digital processor further comprises a plurality of processing units each being configured to generate one of the faded signals.

19. The apparatus of claim 18 wherein each of the processing units comprises a plurality of processing elements each being configured to independently scale the broadcast signal as a function of one or more parameters relating to a fading model, and a combiner configured to combine the independently scaled broadcast signals.

20. The apparatus of claim 19 wherein each of the processing elements is further configured to apply a doppler frequency shift to the broadcast signal.

21. The apparatus of claim 19 wherein each of the processing elements is further configured to apply a delay to the broadcast signal.

22. The apparatus of claim 13 wherein the broadcast signal comprises video.

23. The apparatus of claim 13 wherein the broadcast signal comprises a spread-spectrum signal.

24. The apparatus of claim 13 wherein the interface is further configured to receive a communications signal from each of the subscriber stations under test, and wherein the digital processor is further configured to create two independently faded signals from each of the communications signals, combine a first one of the two independently faded signals created from each of the communications signals, combine a second one of the two independently faded signals created from each of the communications signals, and attempting to recover each of the communications signals from the first and second ones of the combined independently faded signals.

25. An apparatus to test a plurality of wireless subscriber stations, comprising:

means for generating a broadcast signal;

means for digitally creating a plurality of independently faded signals from the broadcast signal; and

means for providing at least one of the faded signals to each of the wireless subscriber stations under test.